National Institute of Environmental Health Sciences

Comment on "The effects on human health from stratospheric ozone depletion and its interactions with climate change" by M. Norval, A. P. Cullen, F. R. de Gruijl, J. Longstreth, Y. Takizawa, R. M. Lucas, F. P. Noonan and J. C. van der Leun, Photochem. Photobiol. Sci., 2007, 6, 232

Author(s): Grant WB, Moan J, Reichrath J
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Abstract:

An increase in solar ultraviolet-B (UVB) radiation reaching the earth's surface is an important consequence of stratospheric ozone depletion. UVB has important effects on human health, both beneficial and harmful. Recent research has found that solar UVB reduces the risk of over 20 types of cancer, respiratory diseases caused by viruses, autoimmune diseases, and, likely, several other diseases, in addition to the well-known effects on bone diseases. On the other hand, solar UVB is an important risk factor for non-melanoma skin cancer and cataracts. Human epidemiological studies have provided evidence that solar UVA may be a more important risk factor for melanoma than UVB. If this result is correct, melanoma risk is not related to ozone depletion. We consider the net effect of solar UVB on human health to be beneficial at or near current levels.

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Resource Description

Exposure :

weather or climate related pathway by which climate change affects health

Solar Radiation

Geographic Feature:

resource focuses on specific type of geography

None or Unspecified

Geographic Location:

resource focuses on specific location

Global or Unspecified

Health Impact:

specification of health effect or disease related to climate change exposure

Cancer, Infectious Disease, Respiratory Effect, Other Health Impact

Infectious Disease: Airborne Disease

Airborne Disease: Influenza

Other Health Impact: Vitamin D deficiency; Bone disease

Resource Type:

format or standard characteristic of resource

Review

Timescale:

time period studied

Time Scale Unspecified